ABSTRACT

A heating apparatus is provided that is optimized in terms of its heating efficiencies and wind proofing against flame out. The heating apparatus includes a heating head and a burner assembly for igniting fuel from a fuel source. The heating head has a dual-walled construction to form several flue chambers with the inner wall preferably being insulated to maximize heat transfer to the outer wall from combustion gases flowing through the flue chambers. The flue chambers can also be formed to be substantially isolated from each other and configured to generate turbulent gas flow therein for maximum heat transfer to the outer wall.